

## Job Related Information

This document includes information about the role for which you are applying and the information you will need to provide with your application.

### 1. Role Details

Vacancy reference	13943
Job title:	Research Assistant / Associate
Reports to:	Professor of Computer Science
Salary:	Ranging from £29,799 to £38,833
Terms and conditions:	Full time Research Staff
Grade	AC1 / AC2
Duration of post:	Until 31 December 2018
Working hours:	37 hours per week (full time, Monday to Friday)
Location:	Milton Keynes
Closing date:	12 October 2017
Type of application form accepted:	Standard or Accessible version
Number of referees required:	Three
Unit recruitment contact:	Ortenz Rose

## 2. Summary of duties

The key objective of the Up2U project is to bridge the gap between secondary schools and higher education and research by better integrating formal and informal learning scenarios and adapting both the technology and the methodology that students will most likely be facing in universities.

The project will be focusing on the context of secondary schools, often referred to as high schools, which provide secondary education between the ages of 11 and 19 depending on the country, after primary school and before higher education. The learning context from the perspective of the students is the intersection of formal and informal spaces, a dynamic hybrid learning environment where synchronous activities meet in both virtual and real dimensions. For this, we propose to develop an innovative Up to University (Up2U) ecosystem – based on proven experiences in higher education and big research – that facilitates open, more effective and efficient co-design, co-creation, and use of digital content, tools and services adapted for personalized learning and teaching of high school students preparing for university. We will address project based learning and peer-to-peer learning scenarios.

We strongly believe that all the tools and services the project is going to use and/or make available (i.e. incorporate, design, develop and test) must be sustainable after the lifetime of the project. Therefore, the project is going to develop business plans and investigate appropriate business models using the expertise of the Small Medium Enterprise and National Research and Education Network partners and their contacts with third-party business actors. Our plan is to make it easy for new schools to join the Up2U infrastructure and ecosystem that will form a federated market-place for the learning community.

We are currently looking for a Research Assistant or a Research Associate (depending on qualification) to work on this project. The appointment will be made on the Academic Grade 1 or 2 Salary Scales for Research Staff, ranging from £29,799 to £38,833 pa depending on qualifications and experience. Appointment as a Research Associate requires a PhD or three years equivalent in quality of achievement.

### *JOB DESCRIPTION*

The work will target the development of the front-end user interface to Up2U for teachers and students, i.e., the Integrated Application Toolbox. This toolbox will be web portal-based where all the tools and applications will be accessible according to the project's actor-driven methodological approach. This approach will enable the definition of a personalized, dynamic learning path with social sharing and interactions (i.e. project based and peer-to-peer learning and assessment). Internally, the application toolbox will intermediate between the cloud-based service infrastructure and the tools managed inside.

The work will also involve research on Blockchain technology and its applications on education. Blockchain is most commonly known as the technology underpinning the Bitcoin cryptocurrency. In recent years, the open source code of the Bitcoin Blockchain has been taken and extended by many groups to expand its capabilities. Blockchain technology and smart contracts can be used in education in a variety of interesting and potentially revolutionary scenarios, such as enhancing standards for badging, certification and reputation on the Web with the use of the Blockchain as a trusted ledger.

We expect successful applicants to fit into our Computer Science REF profile depending on previous experience. The REF is a UK research assessment exercise whereby research departments are evaluated for their research contribution through their publications, income generation and non-academic impact.

You will be working as part of a team of dynamic researchers in the field of knowledge technologies, Semantic Web and Web services within KMi, and in the context of a European project consortium. There will be the opportunity to develop your research profile, to travel to give demos and presentations, and to write academic papers.

## RELEVANT PUBLICATIONS AND FURTHER INFORMATION

All publications below are available from <http://kmi.open.ac.uk/publications/>

Mikroyannidis, A., Domingue, J., Pareit, D., Gerwen, J., Tranoris, C., Jourjon, G. and Marquez-Barja, J. (2016) Applying a methodology for the design, delivery and evaluation of learning resources for remote experimentation, IEEE Global Engineering Education Conference (EDUCON), Abu Dhabi, UAE, IEEE Education Society Publications <http://ict-forge.eu/wp-content/uploads/2013/11/EDUCON-2016-full-paper.pdf>

Mikroyannidis, A., Domingue, J., Maleshkova, M., Norton, B. and Simperl, E. (2014) Developing a Curriculum of Open Educational Resources for Linked Data, 10th annual OpenCourseWare Consortium Global Conference (OCWC), Ljubljana, Slovenia [http://conference.ocwconsortium.org/2014/wp-content/uploads/2014/04/Paper\\_15-Curriculum.pdf](http://conference.ocwconsortium.org/2014/wp-content/uploads/2014/04/Paper_15-Curriculum.pdf)

Third, A., Domingue, J., Bachler, M. and Quick, K. (2016) Blockchains and the Web Position Paper, A W3C Workshop on Distributed Ledgers on the Web, MIT Media Lab, Cambridge, Massachusetts <https://www.w3.org/2016/04/blockchain-workshop/interest/third.html>

Sharples, M. and Domingue, J. (2016) The Blockchain and Kudos: a Distributed System for Educational Record, Reputation and Reward, 11th European Conference on Technology Enhanced Learning, Lyon, France, Springer <http://oro.open.ac.uk/46663/>

## USEFUL URLS

Open Blockchain - <http://blockchain.open.ac.uk>

FORGE: a project on the development of multi-platform open educational resources for online experimentation - <http://ict-forge.eu>

EUCLID: a project on creating open educational resources based on eBooks for Linked Data - <http://www.euclid-project.eu/>

FutureLearn - <http://www.futurelearn.com>

OpenLearn - <http://openlearn.open.ac.uk>

## 3. Person specification

Requirements (E = Essential/ D = Desirable)	
<b>Education, qualifications and training</b>	
Master in Computer Science or a related field, or 2+ years of Research & Development experience in IT. Appointment as a Research Associate requires a PhD or three years equivalent in quality of achievement.	
<b>Knowledge, work and other relevant experience</b>	
<b>Essential:</b>	<ul style="list-style-type: none"><li>• Strong software and Web development skills;</li><li>• Familiarity with Learning Management Systems and MOOC platforms;</li></ul>

	<ul style="list-style-type: none"> <li>• Experience in eLearning technologies and pedagogy.</li> </ul>
<b>Desirable:</b>	<ul style="list-style-type: none"> <li>• Experience with PHP, Java and JavaScript;</li> <li>• Experience in the development of technology-enhanced learning applications and widgets for Learning Management Systems and other educational platforms;</li> <li>• Experience in the use of technology-enhanced learning standards and specifications, such as SCORM and IMS LTI;</li> <li>• Experience working in (higher) education.</li> </ul>
<b><u>Personal abilities and qualities</u></b>	
<b>Essential:</b>	<ul style="list-style-type: none"> <li>• Proven ability to fit into the OU's Computer Science REF profile (depending on level and experience: publications, supporting income generation and non-academic impact);</li> <li>• Ability to quickly demonstrate understanding of the project aims and specific tasks as requested;</li> <li>• Self-starter in providing solutions to meet project needs;</li> <li>• Ability to work in complex team relationships;</li> <li>• Excellent written and oral communication skills;</li> <li>• Work to challenging targets and deadlines;</li> <li>• Ability to handle constructive feedback.</li> </ul>
<b>Desirable:</b>	n/a

#### 4. Role specific requirements e.g. Shift working

n/a
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#### 5. About the unit/department

<p><b>Faculty of Science, Technology, Engineering &amp; Mathematics</b></p> <p>The newly formed Faculty of Science, Technology, Engineering and Mathematics (STEM) comprises:</p> <ul style="list-style-type: none"> <li>• School of Computing &amp; Communications</li> <li>• School of Environment, Earth &amp; Ecosystem Sciences</li> <li>• School of Engineering &amp; Innovation</li> <li>• School of Life, Health &amp; Chemical Sciences</li> <li>• School of Mathematics &amp; Statistics</li> <li>• School of Physical Sciences</li> <li>• Knowledge Media Institute (distinct research institute)</li> <li>• Deanery including teams supporting Curriculum, Research and Enterprise, Laboratory Infrastructure and Faculty Administration</li> </ul> <p><b>“We aspire to be world leaders in inclusive, innovative and high impact STEM teaching and research, equipping learners, employers and society with the capabilities to meet tomorrow’s challenges”</b></p>
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The Knowledge Media Institute (KMi) of the UK's Open University is a highly successful interdisciplinary research centre founded at The Open University in 1995, and located in attractive premises at The Open University's main campus in Milton Keynes, UK. We offer a stimulating environment, widely acknowledged to be at the leading edge of research and development, particularly in Semantic Technologies, Human Computer Interaction, New Media and Information Retrieval. The style, impact and content of our work can be seen at <http://kmi.open.ac.uk/>

## 6. How to obtain more information about the role or application process

If you would like to discuss the particulars of this role before making an application please contact Professor John Domingue on +44 (0)1908 653800 or email: [john.domingue@open.ac.uk](mailto:john.domingue@open.ac.uk)

If you have any questions regarding the application process please contact Ortenz Rose on +44 (0)1908 654774 or email: [ortenz.rose@open.ac.uk](mailto:ortenz.rose@open.ac.uk)

## 7. The application process and where to send completed applications

Please ensure that your application reaches the University by:	12 October 2017
Post it to:	Ortenz Rose
Name/Job title:	KMi Senior Co-ordinator - Staffing & Recruitment
Department/Unit:	STEM, The Knowledge Media Institute
Address:	The Open University, Walton Hall, MILTON KEYNES. Bucks
Post Code:	MK7 6AA
Or e-mail your application to:	<a href="mailto:kmi-recruitment@open.ac.uk">kmi-recruitment@open.ac.uk</a>

## 8. Selection process and date of interview

The interview panel will be chaired by:	Professor John Domingue
The other members of the interview panel will be:	Dr Alexander Mikroyannidis Dr Allan Third
The interviews will take place on:	To be advised

The selection process for this post will include...

- A review of applications by the interview panel;
- A formal interview.

Please ensure you complete all relevant sections of the application form. You are required to include a curriculum vitae; however **any CV submitted without a completed application for employment form will not be accepted.**



We will let you know as soon as possible after the closing date whether you have been shortlisted for interview. Further details on the selection process will also be sent to shortlisted candidates.

Applications received after the closing date will not be accepted.